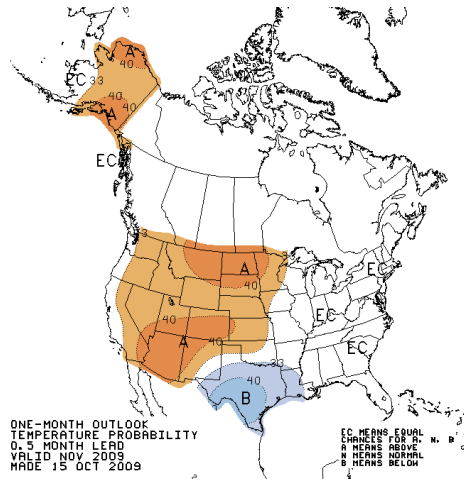


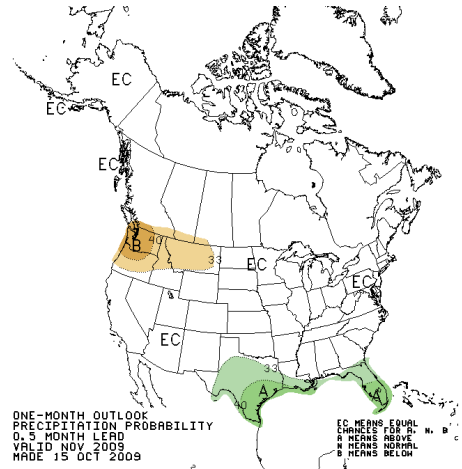
November 2009 – January 2010 Temperature and Precipitation Outlooks

Below are the latest official probabilistic outlooks from the Climate Prediction Center (CPC) for November temperatures and precipitation, and the average for the November through January three month period.

NOVEMBER 2009 OUTLOOKS

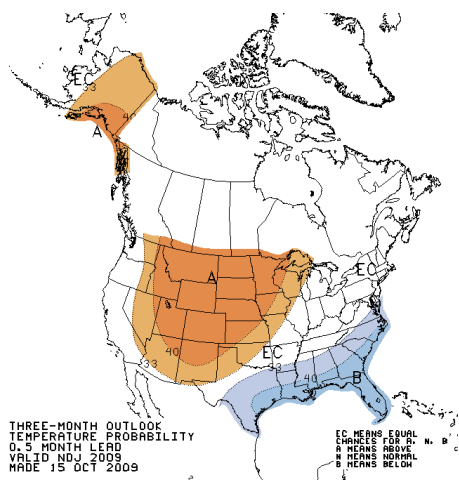


Temperature

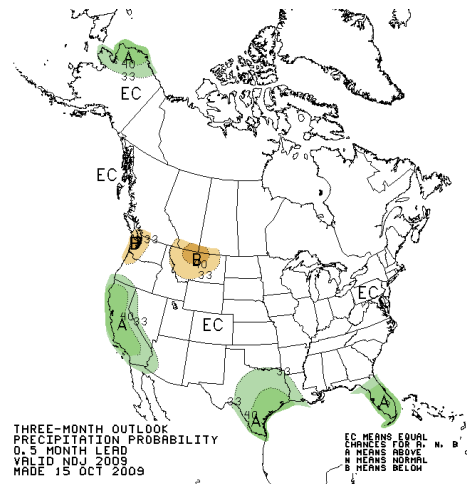


Precipitation

NOVEMBER 2009 through JANUARY 2010 OUTLOOKS



Temperature



Precipitation

In the above CPC outlooks for November, there is an increased probability of above normal temperatures across South Dakota and the surrounding portions of Iowa, Minnesota, and Nebraska in the WFO FSD forecast area, and equal chances (EC) for above normal, normal and below normal precipitation (33.3 percent chance of any category happening). For the three-month period of November through January, there is again an increased chance of above normal temperatures, with continued equal chances for above normal, normal, and below normal precipitation.

The shaded areas on these maps indicate where there is a higher probability of above normal or below normal values. For example, on the November temperature outlook, there is a 40 percent chance of seeing above normal temperatures in North Dakota and eastern Montana. There is still a 33 percent chance of normal temperatures, and a 27 percent chance of below normal temperatures in that region.

Experimental WFO FSD Outlooks

The following images show the “best-guess” outlooks developed at WFO FSD. They are based on a combination of the output from multiple neural network programs, comparing observed historical data from years with similar current values and recent trends of multiple climate indices (analogs), and looking at the statistical correlations of several observed climate indices with future observed temperatures and precipitation based on historical data from almost 60 years.

These images are created using the average forecast values from all of the outlook tools, and then plotting which tercile (i.e. 3 category: above, normal, below) the averages fall into for each of 12 climate divisions covering South Dakota, southwest Minnesota, northwest Iowa, and northeast Nebraska. Red is for above normal temperatures, blue is below normal temperatures, green is above normal precipitation, and brown is below normal precipitation

The table that follows below the images gives a breakdown of what percentage of the outlook tools fell into each of the 3 terciles for all of the climate divisions. These percentages are given to relay what level of confidence might be placed on the outlooks.

For the Analog tools, it was determined that the following years most closely matched the current values and recent trends of the greatest number (4 or more) of the climate indices that were studied:

1957, 1963, 1991, and 2004

Other years that matched closely with only 2 or 3 different indices included:

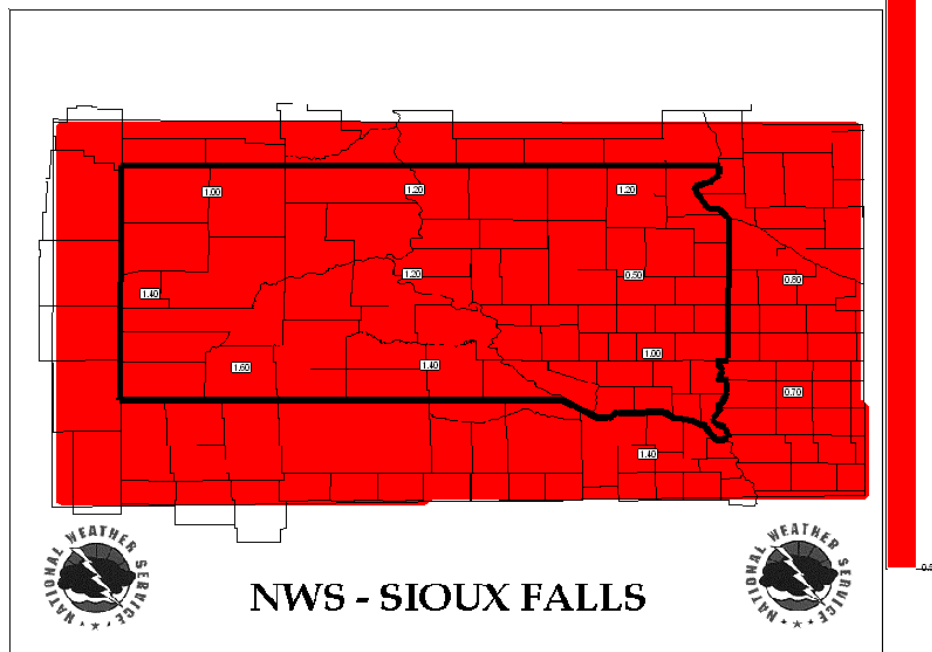
1951, 1964, 1969, 1974, 1976, 1986, 1987, 1989, 1993, 1994, 1996, 2002, 2003, 2006, and 2008

DISCLAIMER: WFO FSD is developing local 1 to 3 month outlooks of temperature and precipitation. These outlooks are experimental and still being tested and developed. They are being provided to give more details and a more deterministic outlook for South Dakota and the portions of Minnesota, Iowa, and Nebraska in the FSD forecast area. They are not intended to compete with or replace the official NOAA outlooks issued by the Climate Prediction Center (CPC), which are probabilistic. For more details on how these outlooks are prepared, or if you have any questions concerning these outlooks, please feel free to contact the WFO FSD Climate Services Focal Point [Mike Gillispie](#).

Dec. 2009 Temperature Outlook

based on 10/27 indices

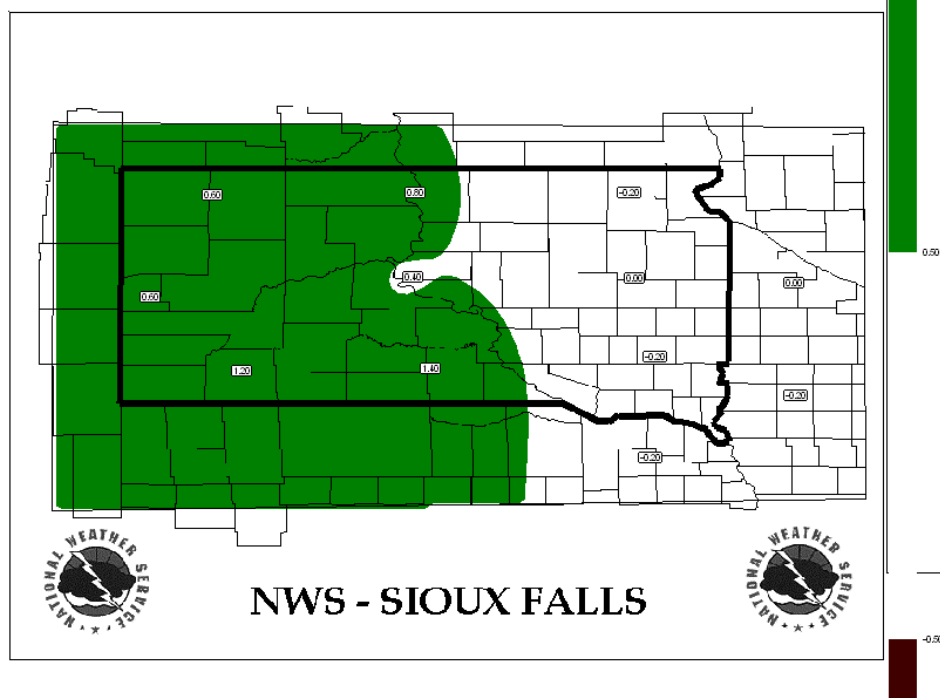
3-category



Dec. 2009 Precipitation Outlook

based on 10/27 indices

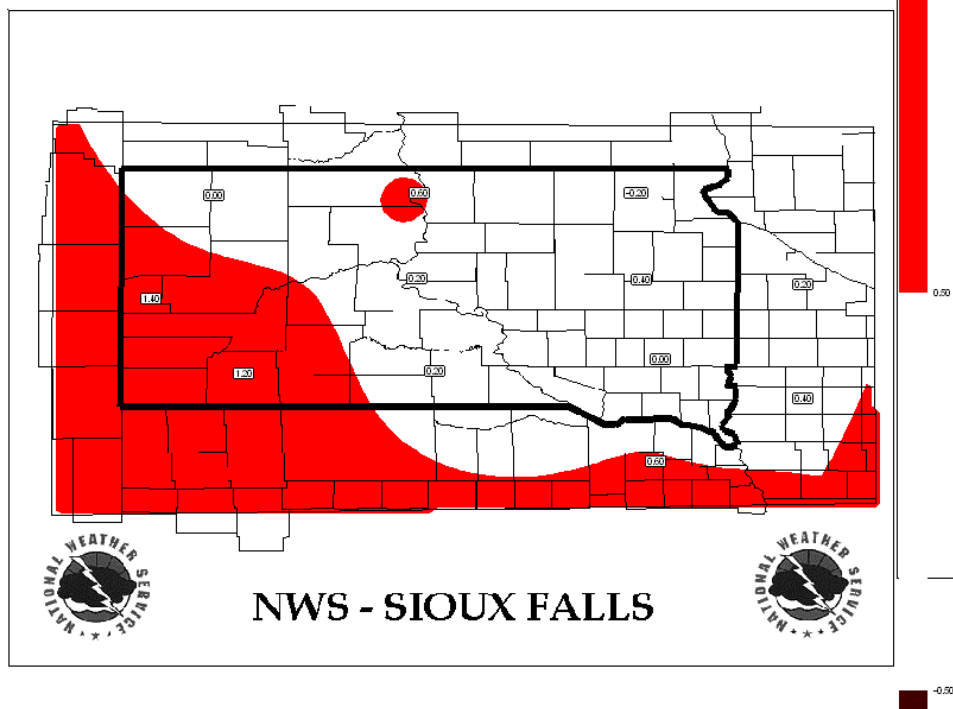
3-category



Jan. 2010 Temperature Outlook

based on 10/27 indices

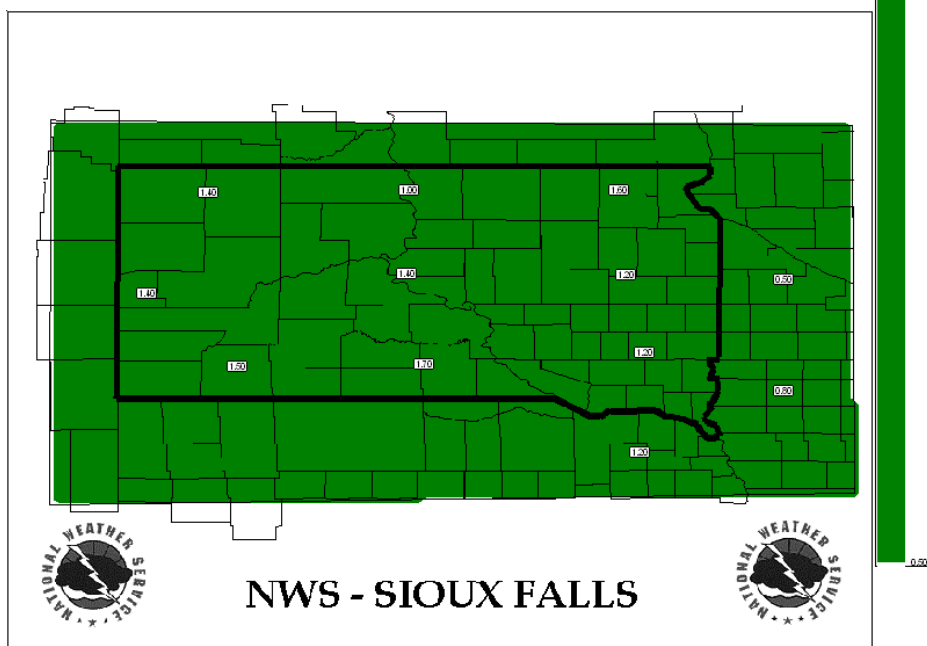
3-category



Jan. 2010 Precipitation Outlook

based on 10/27 indices

3-category



Percent of outlook tools predicting each category

Nov. Temp.	Above	Normal	Below
SDCD1	20	25	55
SDCD2	40	40	20
SDCD3	30	30	40
SDCD4	30	40	30
SDCD5	40	30	30
SDCD6	20	60	20
SDCD7	30	60	10
SDCD8	20	35	45
SDCD9	35	65	0
IACD1	30	35	35
MNCD7	30	50	20
NECD3	20	40	40

Nov. Prec.	Above	Normal	Below
SDCD1	40	50	10
SDCD2	40	30	30
SDCD3	55	35	10
SDCD4	50	20	30
SDCD5	50	25	25
SDCD6	30	60	10
SDCD7	30	40	30
SDCD8	40	50	10
SDCD9	0	70	30
IACD1	20	20	60
MNCD7	20	50	30
NECD3	10	40	50

Dec. Temp.	Above	Normal	Below
SDCD1	50	50	0
SDCD2	60	40	0
SDCD3	60	40	0
SDCD4	70	30	0
SDCD5	80	20	0
SDCD6	60	40	0
SDCD7	45	35	20
SDCD8	70	30	0
SDCD9	50	50	0
IACD1	55	25	20
MNCD7	50	40	10
NECD3	70	30	0

Dec. Prec.	Above	Normal	Below
SDCD1	60	10	30
SDCD2	60	20	20
SDCD3	20	50	30
SDCD4	50	30	20
SDCD5	70	20	10
SDCD6	40	40	20
SDCD7	40	20	40
SDCD8	80	10	10
SDCD9	30	30	40
IACD1	30	30	40
MNCD7	30	40	30
NECD3	70	10	20

Jan. Temp.	Above	Normal	Below
SDCD1	40	20	40
SDCD2	40	50	10
SDCD3	30	30	40
SDCD4	70	30	0
SDCD5	60	40	0
SDCD6	30	50	20
SDCD7	40	40	20
SDCD8	30	50	20
SDCD9	30	40	30
IACD1	50	20	30
MNCD7	40	30	30
NECD3	50	30	20

Jan. Prec.	Above	Normal	Below
SDCD1	80	10	10
SDCD2	70	10	20
SDCD3	80	20	0
SDCD4	70	30	0
SDCD5	80	15	5
SDCD6	80	10	10
SDCD7	70	20	10
SDCD8	85	15	0
SDCD9	70	20	10
IACD1	50	40	10
MNCD7	45	35	20
NECD3	70	20	10